



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,780	09/26/2003	John Maris	16050-1US CMB/AA/mb	4345

20988 7590 09/19/2005  
OGILVY RENAULT LLP  
1981 MCGILL COLLEGE AVENUE  
SUITE 1600  
MONTREAL, QC H3A2Y3  
CANADA

EXAMINER

GIBSON, ERIC M

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/670,780

Applicant(s)

MARIS, JOHN

Examiner

Eric M. Gibson

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 28-30 is/are allowed.  
6) ☒ Claim(s) 1-6, 10-13, 17-21, 25-27 and 31 is/are rejected.  
7) ☒ Claim(s) 7-9, 14-16 and 22-24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6, 10-13, 17-21, 25-27, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berlioz et al. (US006400283B1) in view of Jones (US004495806A).

a. Per claim 1, Berlioz teaches an apparatus for displaying a dynamic parameter of an aircraft including a processing unit receiving a selected display algorithm signal and a reading of a dynamic parameter and determining a display signal (column 3, lines 39-45) and a display unit receiving the display signal and displaying a scale and a pointer pointing to the scale (7, figure 1). Berlioz does not teach that the scale used in the invention is a non-linear scale. However, as evidenced by the teaching of Jones, the use of non-linear scales in the aviation display art is well known in the prior art and can be advantages for the display of certain parameters (column 1, lines 10-21). It would have been obvious to one of ordinary skill in the art, at the time of invention, to use a non-linear scale in the system of Berlioz, as is well known in the art, and subject to advantages that would be known to one of ordinary skill in the art, as evidenced by Jones.

Art Unit: 3661

b. Per claim 2, Berlioz teaches a vertical portion displayed vertically by the display unit (see figure 1).

c. Per claim 3, Berlioz teaches the speed of the aircraft (column 3, line 32 and column 5, line 23).

d. Per claim 4, Berlioz teaches using the pointer to display the speed of the aircraft (column 3, line 53).

e. Per claim 5, the airspeed indicator illustrated in Berlioz figure 5 shows the typical indicator with a range of airspeeds with numbers displayed.

f. Per claim 6, while Berlioz does not explicitly teach a user interface, the invention clearly contemplates user input (column 4, lines 8-14), which inherently requires some type of user interface.

g. Per claim 10, Berlioz teaches that a dynamic parameter includes altitude, with the processing unit receiving an altitude reference signal and the processing unit determines the display signal (column 3, lines 39-45).

h. Per claim 11, Berlioz includes a pointer (11, figure 1) with the display of the altitude.

i. Per claim 12, the altitude indicator illustrated in Berlioz figure 1 shows the typical indicator with a range of altitudes with numbers displayed.

j. Per claim 13, while Berlioz does not explicitly teach a user interface, the invention clearly contemplates user input (column 4, lines 8-14), which inherently requires some type of user interface.

Art Unit: 3661

k. Per claim 17, the indicators illustrated in Berlioz show the typical indicator with a range of numbers displayed.

l. Per claim 18, Berlioz teaches a method for displaying a dynamic parameter of an aircraft including providing a reading of a dynamic parameter and generating a display signal (column 3, lines 39-45) and a display unit receiving the display signal and displaying a scale and a pointer pointing to the scale (7, figure 1). Berlioz does not teach that the scale used in the invention is a non-linear scale. However, as evidenced by the teaching of Jones, the use of non-linear scales in the aviation display art is well known in the prior art and can be advantages for the display of certain parameters (column 1, lines 10-21). It would have been obvious to one of ordinary skill in the art, at the time of invention, to use a non-linear scale in the method of Berlioz, as is well known in the art, and subject to advantages that would be known to one of ordinary skill in the art, as evidenced by Jones.

m. Per claim 19, Berlioz teaches displaying more than one parameter value (see figure 1).

n. Per claims 20 and 21, Jones teaches that non-linear scales are known in the prior art. The choice of which type of algorithm to use to implement the non-linear scale is a design choice that would be obvious to one of ordinary skill in the art.

o. Per claim 25, Berlioz teaches that the dynamic parameter includes at least one of altitude and speed (column 3, lines 39-45).

p. Per claim 26, Berlioz teaches an apparatus for displaying a dynamic parameter of an aircraft including a display unit receiving a display signal and displaying

Art Unit: 3661

a scale and a pointer pointing to the scale (7, figure 1). Berlioz does not teach that the scale used in the invention is a non-linear scale. However, as evidenced by the teaching of Jones, the use of non-linear scales in the aviation display art is well known in the prior art and can be advantages for the display of certain parameters (column 1, lines 10-21). It would have been obvious to one of ordinary skill in the art, at the time of invention, to use a non-linear scale in the system of Berlioz, as is well known in the art, and subject to advantages that would be known to one of ordinary skill in the art, as evidenced by Jones.

q. Per claim 27, the indicators illustrated in Berlioz show the typical indicator with a range of numbers displayed.

r. Per claim 31, Berlioz teaches an apparatus for displaying a dynamic parameter of an aircraft including a processing unit receiving a selected display algorithm signal and a reading of a dynamic parameter and determining a display signal (column 3, lines 39-45) and a display unit receiving the display signal and displaying a scale (7, figure 1). Berlioz does not teach that the scale used in the invention is a non-linear scale. However, as evidenced by the teaching of Jones, the use of non-linear scales in the aviation display art is well known in the prior art and can be advantages for the display of certain parameters (column 1, lines 10-21). It would have been obvious to one of ordinary skill in the art, at the time of invention, to use a non-linear scale in the system of Berlioz, as is well known in the art, and subject to advantages that would be known to one of ordinary skill in the art, as evidenced by Jones.

***Allowable Subject Matter***

2. Claims 28-30 are allowed.

a. Per newly added independent claims 28, 29, and 30, the prior art does not teach or reasonably suggest in combination the claimed invention including that the selected display algorithm constantly and exactly fits a dynamic parameter reading and the minimum and maximum values to the scale, thereby emphasizing a range of the reading of the parameter as claimed.

3. Claims 7-9, 14-16, and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

a. Per claims 7, 14, and 23, the prior art does not teach or reasonably suggest in combination the method and apparatus which further comprises providing next to the scale an adjacent bar comprising a first end corresponding to the dynamic parameter of the aircraft and a variable end corresponding to a future dynamic parameter value of the aircraft if a current variation of the dynamic parameter is maintained during a predetermined amount of time as claimed.

b. Claims 8, 9, 15, 16, and 24 would serve to further define the invention of claims 7, 14, and 23 over the prior art.

c. Per claim 22, the prior art does not teach or reasonably suggest in combination the method including that the generating of the scale is performed using the provided reading of the dynamic parameter and more than one selected display

algorithm signal, where each of the more than one selected display algorithm signal is being used for generating a corresponding part of the scale as claimed.

### ***Response to Arguments***

4. Applicant's arguments filed 6/3/2005 have been fully considered but they are not persuasive.

a. Specifically, the applicant argues that neither Berlioz, nor Jones, teaches several elements of the claimed invention, including a selected display algorithm, a scale that changes dynamically, and the fact that the scale changes dynamically and non-linearly, in accordance with the selected display algorithm (see Applicant's Remarks filed 6/3/2005 at page 9). However, the Examiner has shown that Berlioz teaches displaying the parameter value on a display by using a digital computer to convert the physical data into a display signal for generating signals suitable for display on the screen. This is the essence of a "display algorithm" in the nature of the invention. Furthermore, one of the embodied parameters contemplated by the teaching of Berlioz is airspeed, which is a dynamic parameter. Finally, the limitation of using a non-linear display scale is well known in the art, as evidenced by the teaching of Jones.

b. The Applicant also argues that because Jones teaches a mechanical system, the teaching is completely inapplicable to the invention of Berlioz. However, the Applicant misconstrues the teaching that the Examiner is relying upon in the Jones reference. It is not the physical mechanical system that the Examiner is contemplating in combination with the Berlioz system. Instead, it is the *known use of a non-linear*



Art Unit: 3661

*scale in the aviation display art* that Jones is cited to teach. One of ordinary skill in the art would have the requisite knowledge to write a computer program that displays a non-linear scale in the system of Berlioz, and would have the motivation to do so for the same reasons that a non-linear scale was used in the mechanical system of Jones. This is the evidence that the Examiner relies upon Jones to teach, not the actual physical incorporation of the mechanical device from Jones.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

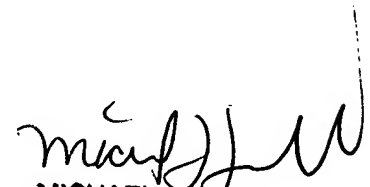
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

Art Unit: 3661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG



**MICHAEL J. ZANELLI**  
**PRIMARY EXAMINER**